

REMARKS

The claims have not been amended. Accordingly, claims 1, 3-4, 8-15, 39, 41, 43-45, and 47-53 are currently pending and under consideration in the application, of which claims 1 and 39 are independent.

Accordingly, Applicant requests reconsideration and timely withdrawal of the pending rejections for the reasons discussed below.

Rejections Under 35 U.S.C. § 103

Claims 1, 4, 8, 39, 41, and 49 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over U.S. Patent No. 6,389,473 issued to Carmel, *et al.* ("Carmel") in view of U. S. Patent No. 7,272,645 issued to Chang, *et al.* ("Chang"). In particular, the Examiner asserts that Chang remedies the deficits of Carmel, by disclosing transmitting a download, beginning at the byte where the download received an error on a previous server before the download was complete, to a second server. As such, the Examiner asserts that it would have been obvious to modify Carmel, according to the teachings of Chang, in order to efficiently reallocate data stream portions to a second server. For at least the following reasons, Applicants respectfully disagree.

Carmel discloses forming multiple links between a computer 34 and a network server 36, in order to insure sufficient bandwidth between the computer 34 and the server 36 to download a data stream (Fig. 4; col. 9, lines 14-22). In particular, Carmel discloses dividing a data stream into time slices, while transmitting each slice from the transmitting computer 34 the server 36, substantially in real time (col. 2, lines 4-9). Carmel also teaches adjusting the compression ratio of the data stream, such that the slices are downloaded to server 36 at the rate in which the

slices are input into computer 34 (col. 11, lines 40-64). Thus, Carmel discloses that the slices are sequentially downloaded over different links, as soon as the slices are formed by the single computer 34.

Chang discloses various methods that include downloading a file (or portions thereof) from different servers, to insure that the file is reliably downloaded (col. 1 lines 7-9). Specifically, Chang discloses: a multiple concurrent downloading, wherein two or more identical versions of a file are downloaded simultaneously from different servers; a multiple concatenated downloading, wherein different portions of the same file are downloaded from different servers; and serial concatenated downloading, wherein if an error occurs while downloading a file from one server, a second server begins downloading the same file from a point where the error occurred (FIGS. 3-5; col. 3, lines 1-21). Accordingly, in order for such methods to operate, Chang discloses that multiple copies of the same file must be stored on different computers, prior to the downloading.

However, since the slices of Carmel are downloaded to the server 36 in real time, (as the data stream is divided into slices by the computer 34), there is no copy of the data stream on a second computer, prior to the downloading. Therefore, the methods of Chang are inapplicable to the method of Carmel, since no duplicate copies of the data stream exist prior to the downloading of the slices to the server 36. In other words, the slices of the data stream cannot be reallocated to a second computer for downloading to the server 36, since copies of the slices are not formed on such a second computer.

In addition, one of skill in the art would not have been motivated to make the copies of the data stream prior to downloading, as required by Chang, since doing so would prevent the slices from being streamed in real time, due to the time lag inherently created by the forming of the copy prior to downloading to the server 36. Thus, the proposed modification would prevent real time streaming, which would destroy the functionality of the method of Carmel.

Further, present claims 1 and 39 recite sending a request to the nodes to download assigned ones of the sub blocks to the user client, in parallel. However, Carmel discloses that five slices are sequentially assigned to be downloaded over five different links, and then "the process continues in alternation for all the slices of the stream" (col. 12, lines 25-47). Specifically, Carmel discloses that after the five slices have been allocated for download to the five links, a sixth slice is then allocated to the first link, or whichever of the open links was the first to have completed transmission of its initial file (col. 12, lines 48-51).

In addition, Applicants note that Carmel discloses that the determination as to which of the open links was first to complete its transmission does not imply parallel data transmission from multiple nodes. Instead, Carmel discloses that the time periods required for the transmission of each slice are compared to a default value, which would not be necessary if the slices were transmitted in parallel from different nodes (col. 11, lines 48-51). Thus, Carmel discloses that the slices are sequentially downloaded from a single computer, rather than being downloaded in parallel, from different nodes.

Further, while the serial concatenated downloading of Chang includes downloading the exact same file from a second computer, starting from a point where an error occurred while transmitting the file from a first computer, Chang discloses that duplicate copies of the files must be present on both of the computers. However, since Carmel discloses that each slice is taught to be downloaded as soon as it is created, a first slice would be downloaded before a second slice was created.

In addition, since the slices represent sequential segments of the data stream, downloading multiple slices simultaneously would inherently create a time lag, thereby preventing the data stream from being viewed in real time. For example, if a first and second slice were downloaded sequentially, the downloading of the first slice would have to be delayed until the second slice was created, thereby preventing the data stream from being viewed in real

time. Further, since the slices are viewed in sequence, downloading a subsequent slice before downloading a previous slice could result in the slices reaching the server out of the proper sequence, which Carmel teaches against (col. 12, lines 6-9).

Thus, there would have been no motivation to modify the method of Carmel, so as to download the slices in parallel as taught in Chang, since doing so would provide no benefit, because the slices are viewed sequentially in real time. In addition, such a modification would have created a time lag, thereby preventing real time viewing of the data stream.

Accordingly, there would have been no motivation to combine the teachings of Carmel and Chang. In addition, even if there had been such a motivation, the combined teachings fail to teach or disclose all aspects of the present claims. Therefore, this rejection has been respectfully traversed. Reconsideration and withdrawal are respectfully requested.

With regard to present claims 8 and 49, the Examiner asserts that Carmel discloses redistributing sub blocks, based on a number of remaining sub-blocks. However, since the slices of Carmel are continuously generated in real time, it would have been impossible to determine a number of slices remaining. Thus, the method of Carmel is incompatible with such a feature. As such, one of ordinary skill in the art would not have been motivated to make such a modification.

Therefore, this rejection has been respectfully traversed. Reconsideration and withdrawal are respectfully requested.

Claims 3 and 47 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Carmel in view of Chang, and further in view of U.S. Patent Application Publication No. 2002/0035692 applied for by Moriai ("Moriai"). In particular, the Examiner

asserts that Moriai remedies the deficits of Carmel and Chang, by disclosing the determination of whether or not downloading has been completed.

For at least the reasons recited above, Moriai fails to remedy the deficits of Carmel and Chang. Therefore, this rejection has been respectfully traversed. Reconsideration and withdrawal are respectfully requested.

Claims 14, 48, and 52 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Carmel in view of Chang, and further in view of U.S. Patent Application Publication No. 2003/0154282 applied for by Horvitz ("Horvitz"). In particular, the Examiner asserts that Horvitz remedies the deficits of Carmel and Chang, by disclosing the sending of a request to download the reassigned sub blocks.

For at least the reasons recited above, Horvitz fails to remedy the deficits of Carmel and Chang. Therefore, this rejection has been respectfully traversed. Reconsideration and withdrawal are respectfully requested.

Claims 9 and 50 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Carmel in view of Chang, further in view of U. S. Patent No. 7,181,506 issued to Vigue, *et al.* ("Vigue"). In particular, the Examiner asserts that Vigue remedies the deficits of Carmel and Chang, by disclosing a black list queue.

For at least the reasons recited above, Vigue fails to remedy the deficits of Carmel and Chang. Therefore, this rejection has been respectfully traversed. Reconsideration and withdrawal are respectfully requested.

Claims 15 and 53 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Carmel in view of Chang, further in view of U.S. Patent Application

Publication No. 2002/0004846 applied for by Garcia-Luna-Aceves, *et al.* ("Garcia-Luna-Aceves"). In particular, the Examiner asserts that Garcia-Luna-Aceves remedies the deficits of Carmel and Chang, by disclosing connecting to a single server if the sub block downloading fails.

For at least the reasons recited above, Garcia-Luna-Aceves fails to remedy the deficits of Carmel and Chang. Therefore, this rejection has been respectfully traversed. Reconsideration and withdrawal are respectfully requested.

Claims 10-12 and 43-45 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Carmel in view of Chang, further in view of U. S. Patent No. 6,445,679 issued to Taniguchi, *et al.* ("Taniguchi"). In particular, the Examiner asserts that Taniguchi remedies the deficits of Carmel and Chang, by disclosing sub block determination using node state information.

For at least the reasons recited above, Taniguchi fails to remedy the deficits of Carmel and Chang. Therefore, this rejection has been respectfully traversed. Reconsideration and withdrawal are respectfully requested.

Claims 13 and 51 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Carmel in view of Chang, further in view of U.S. Patent Application Publication No. 2002/0136203 applied for by Liva, *et al.* ("Liva"). In particular, the Examiner asserts that Liva remedies the deficits of Carmel and Chang, by disclosing the determination of a downloading error using a checksum value.

For at least the reasons recited above, Liva fails to remedy the deficits of Carmel and Chang. Therefore, this rejection has been respectfully traversed. Reconsideration and withdrawal are respectfully requested.

Conclusion

A full and complete response has been made to the pending Office Action, and all of the stated objections and grounds for rejection have been overcome or rendered moot.

Accordingly, all pending claims are allowable, and the application is in condition for allowance.

The Examiner is invited to contact Applicant's undersigned representative at the number below if it would expedite prosecution. Prompt and favorable consideration of this Reply is respectfully requested.

Respectfully submitted,

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Date: July 14, 2011

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